AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A method of performing rough adjustment of a fixed mirror of a double-beam interferometer including a control interferometer, comprising:

detecting a laser interference light beam from the control interferometer; and

adjusting an angle of the fixed mirror with respect to a laser light beam axis in a range:

from a state where laser light beams do not interfere at all and fine adjustment of the interferometer is ineffective;

to a state where an intensity of interference of the laser light beams becomes maximum or the laser light beams become in an arbitrary interference state and fine adjustment of the interferometer is effective.

Claim 2 (currently amended): ~~The method of adjusting a fixed mirror according to claim 1,~~

A method of adjusting a fixed mirror of a double-beam interferometer including a control interferometer, comprising:

detecting a laser interference light beam from the control interferometer; and

adjusting an angle of the fixed mirror with respect to a laser light beam axis in

a range:

from a state where laser light beams do not interfere at all;

to a state where an intensity of interference of the laser light beams becomes maximum or the laser light beams become in an arbitrary interference state; and

wherein said adjusting step includes:

measuring amplitudes of the laser interference light beam while moving a posture of the fixed mirror until the amplitude becomes larger than a preset reference value;

measuring amplitudes of the laser interference light beam while moving the posture of the fixed mirror to points on a circle around a point where the amplitude becomes larger than the reference value as a center;

setting a point having the largest amplitude among all the measured points on the circle as the center of a next circle; and

repeating the measuring step of the amplitudes at the points on the circle and the setting step until the amplitude at the center of the circle becomes maximum among all the measured points on the circle.

Claim 3 (original): The method of adjusting a fixed mirror according to claim 2, wherein said adjusting step further includes:

moving the posture of the fixed mirror so that phase differences of a vertical side signal and a horizontal side signal from a reference signal of the laser interference light beam approach preset target phase differences.

Claim 4 (previously presented): An interferometric spectrophotometer comprising:

a control interferometer having a fixed mirror;

a photo detector for detecting a laser interference light beam from the control interferometer; and

an adjusting mechanism for making rough adjustments to an angle of the fixed mirror with respect to a laser light beam axis in a range from:

a state where laser light beams do not interfere at all and fine adjustment of the interferometer is ineffective;

to a state where an intensity of interference of the laser light beams becomes maximum or the laser light beams become in an arbitrary interference state and fine adjustment of the interferometer is effective.

Claim 5 (previously presented): A method of rough adjustment of a fixed mirror within a double beam interferometer including a control interferometer having a laser source comprising the steps of:

moving the fixed mirror within the control interferometer sequentially through a series of set points positioned in relation to a starting position of the fixed mirror and detecting the amplitude of a laser interference light beam at each set point; and

comparing the detected amplitude of the laser interference light beam at each set point with a threshold value.

Claim 6 (previously presented): The method of claim 5 wherein the value of the amplitude of the laser interference light beam at the starting position of the fixed mirror is zero.

Claim 7 (previously presented): The method of claim 6 wherein upon the detected amplitude of the laser interference light beam exceeding the threshold value, taking the further step of measuring amplitudes of the laser interference light beam while moving the posture of the fixed mirror to points on a circle around the set point where the amplitude became larger than the threshold value as a center.

Claim 8 (previously presented): The method of claim 7 further including the step of setting a point having the largest amplitude among all the measured points on the circle as the center of a next circle and repeating the measuring step of the amplitudes at the points on the circle and the setting step until the amplitude at the center of the circle becomes maximum among all the measured points on the circle.